

**REMARKS**

The Final Office Action mailed April 8, 2004, has been received and reviewed. Claims 38 through 52 are currently pending in the application. Claims 38 through 52 stand rejected. Applicants propose to amend claims 38 and 42, and respectfully request reconsideration of the application as proposed to be amended herein.

**35 U.S.C. § 102(e) Anticipation Rejections**

Anticipation Rejection Based on U.S. Patent No. 6,514,566 to Mann et al.

Claims 38 through 52 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Mann et al. (U.S. Patent No. 6,514,566). Applicants respectfully traverse this rejection, as hereinafter set forth.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Brothers v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

The Mann Patent discloses “a porous substrate, preferably comprising fibrous glass, impregnated with a composite medium. The composite medium, in turn, comprises an active component supported by a porous matrix material. The matrix material, in some embodiments, is substantially comprised of an organic polymer, such as polyacrylonitrile (PAN). One or more active components, such as crystalline silicotitanate (CST), carbon, or octyl (phenyl) N,N-diisobutylcarbamoylmethylphosphine oxide (CMPO) for example, are dispersed throughout the matrix material.” (Column 5, lines 1-11). As shown in FIG. 2 of the Mann Patent, a plurality of particles formed from a composite medium 304 is dispersed throughout the substrate 302. The interstitial regions between adjacent particles formed from composite medium 304 are occupied by substrate 302. Thus, the substrate 302 acts a structural material to define the spacing of the particles formed from composite medium 304 and support the composite medium 304.

The Mann Patent fails to disclose, either expressly or inherently, the elements in independent claims 38 and 42, as proposed to be amended, reciting “wherein the composite

medium comprises a plurality of discrete particles in mutual contact arranged to define a plurality of interstitial regions therebetween, each of the interstitial regions comprising at least one void.” In contrast, the Mann Patent discloses a porous substrate 302 having the pores impregnated with a composite medium 304. (Column 5, lines 1-3). The interstitial regions between adjacent particles formed from the composite medium 304 are occupied by substrate 302 and lack voids. Independent claims 38 and 42, as proposed to be amended, requires a plurality of discrete particles in mutual contact and further that the interstitial regions between the discrete particles comprise at least one void. Therefore, as proposed to be amended, the anticipation rejection of independent claims 38 and 42 should be withdrawn because the Mann Patent fails to disclose all of the recited elements. Furthermore, the Mann Patent also fails to anticipate dependent claims 39-41 and 43-52 because they depend from novel and nonobvious independent claims 38 and 42.

Additionally, with regard to dependent claims 49 and 51, the Mann Patent appears to fail to disclose either expressly or inherently the discrete particles of the plurality of discrete particles having a generally spherical shape. FIG. 2 of the Mann Patent illustrates the particles formed from the composite medium 304 having a circular cross-section. However, a circular cross-section does not necessarily disclose either expressly or inherently a generally spherical particle. The particles formed from the composite medium 304 that are impregnated into the substrate 302 may have an elongated structure, such as a rod shape.

#### **Disqualification of the Mann Patent as Prior Art Under 35 U.S.C. § 102(e)**

As stated above, as proposed to be amended, the Mann Patent fails to anticipate independent claims 38 and 42, and claims depending therefrom. Furthermore, the Mann Patent is disqualified as prior art for use in a rejection under 35 U.S.C. § 103(a) via 35 U.S.C. § 102(e). The present application and the Mann Patent were, at the time the invention of the present application was made, owned by or subject to an obligation of assignment to Lockheed Martin Idaho Technologies Company. Lockheed Martin Idaho Technologies Company is the predecessor in interest to Bechtel BWXT Idaho, LLC the current assignee of both the Mann Patent and the present application. Therefore, the Mann Patent is disqualified as prior art for use in a rejection under 35 U.S.C. § 103(a) via 35 U.S.C. § 102(e). See, M.P.E.P. § 706.02(l)(1) and

706.02(l)(2).

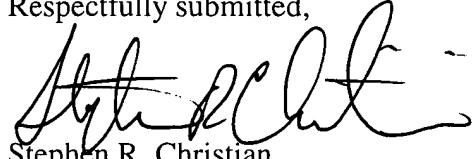
### ENTRY OF AMENDMENTS

The proposed amendments to claims 38 and 42 above should be entered by the Examiner because the amendments are supported by the as-filed specification and drawings and do not add any new matter to the application.

### CONCLUSION

Claims 38 through 52 are believed to be in condition for allowance, and an early notice thereof is respectfully solicited. Should the Examiner determine that additional issues remain which might be resolved by a telephone conference, he is respectfully invited to contact Applicants' undersigned attorney.

Respectfully submitted,



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